

Lanzar *vibe*

AMERICAN CRAFTED PERFORMANCE



Owner's Manual



vibe211
vibe221
vibe231
vibe241
vibe251
vibe261
vibe411
vibe421
vibe431
vibe501



Congratulations on your purchase of a Lanza Vibe amplifier. You have purchased a quality product designed and engineered to give you many years of uncompromised musical service. Vibe amplifiers are designed with the latest technology available, incorporating a DC to DC Switching Power Supply, which provides headroom for even the most demanding peaks and dynamic ranges found on modern CD's and recordings.

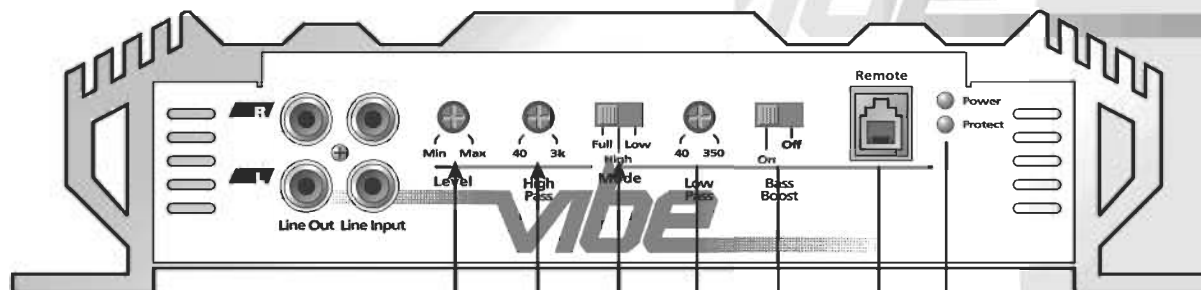
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FEATURES

- MOSFET switches maintain rated power over a wide range of battery voltages
- Stiffly regulated PWM-type power supplies
- 2 Ohm Stable Stereo operation
- Variable input level controls for each pair of channels
- Variable high and low pass crossover controls
- Thermal and speaker short protection circuitry
- Power and Protection LED indicators
- Bass Boost Circuitry
- Stereo, Bridge Mode and Tri-Mode System Application Compatible
- Gold plated power, RCA and speaker connectors
- High-efficiency, heavy aluminum heatsink
- Bass Boost Remote control

FEATURES AND CONTROLS VIBE 211/221/231/241/251/261



INPUT LEVEL CONTROLS

Enables the matching of input levels to the output levels from the head unit (or other signal source).

HIGH PASS FILTER

When Crossover Mode Selector is in High Pass Mode, this control limits the frequencies which will be distributed to the speakers to those above the value to which this is set within the range 40Hz–3 kHz.

CROSSOVER MODE SELECTOR

Determines the mode of built-in crossover: low pass (permits only low frequency signals to pass to speakers), high pass (permits only high frequency signals to pass to speakers), or flat.

POWER & PROTECTION INDICATORS

Provide instant information on status of amplifier, including short-circuit and thermal overload alerts.

REMOTE CONTROL

BASS BOOST CONTROL

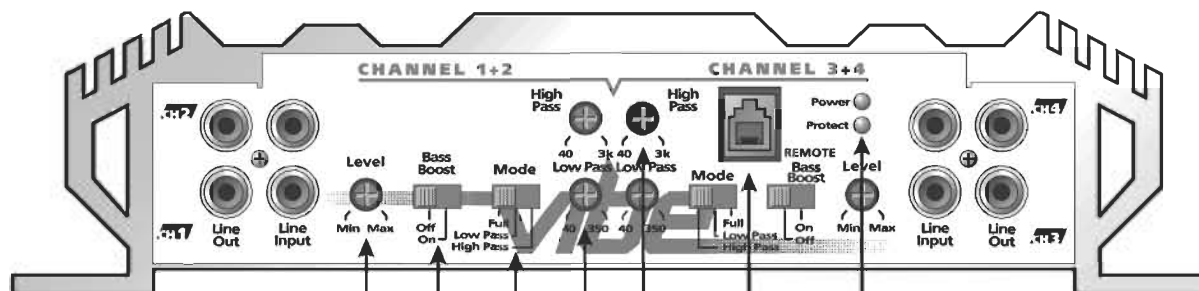
Increases sound level in lower frequencies by 18dB.

LOW PASS FILTER

When Crossover Mode Selector is in Low Pass Mode, this control limits the frequencies which will be distributed to the speakers to those below the value to which this is set within the range 40–350 Hz.

FEATURES AND CONTROLS

VIBE 411/421/431



INPUT LEVEL CONTROLS

Enables the matching of input levels to the output levels from the head unit (or other signal source).

BASS BOOST CONTROL

Increases sound level in lower frequencies by 18dB.

CROSSOVER MODE SELECTORS

Determine the mode of built-in crossovers: low pass (permits only low frequency signals to pass to speakers), high pass (permits only high frequency signals to pass to speakers), or flat.

LOW PASS FILTER

When Crossover Mode Selector is in Low Pass Mode, this control limits the frequencies which will be distributed to the speakers to those below the value to which this is set within the range 40–350 Hz.

POWER & PROTECTION INDICATORS

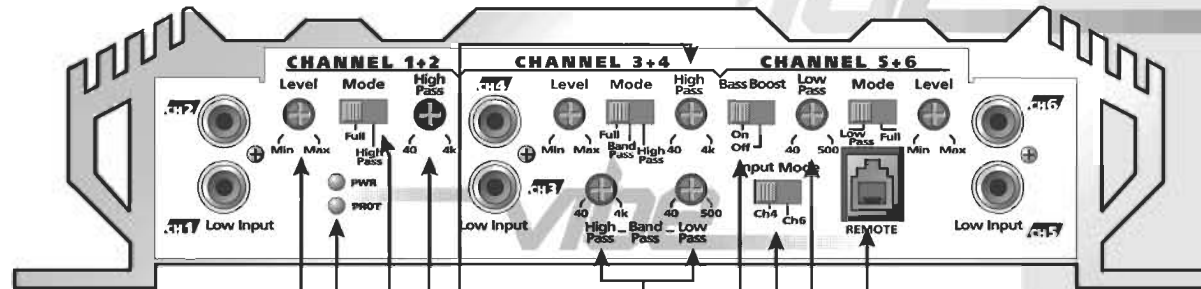
Provide instant information on status of amplifier, including short-circuit and thermal overload alerts.

REMOTE CONTROL

HIGH PASS FILTER

When Crossover Mode Selector is in High Pass Mode, this control limits the frequencies which will be distributed to the speakers to those above the value to which this is set within the range 40Hz–3kHz.

FEATURES AND CONTROLS VIBE 531



INPUT LEVEL CONTROLS (ALL CHANNELS)

Enables the matching of input levels to the output levels from the head unit (or other signal source)

POWER/PROTECTION INDICATORS

Provide amp power status and short-circuit and thermal overload alerts.

CROSSOVER MODE SELECTORS (ALL CHANNELS)

Determine the mode of built-in crossovers: low pass (permits only low frequency signals to pass to speakers), high pass (permits only high frequency signals to pass to speakers), or flat.

HIGH PASS FILTERS

When Crossover Mode Selector is in High Pass Mode, these controls limit the frequencies which will be distributed to the speakers to those above the values to which these are set.

BAND PASS CROSSOVER CONTROLS (CHANNEL 3/4 ONLY)

When Ch 3/4 Crossover Mode Switch is in Band Pass position, these two controls are used to establish the upper and lower frequency range limits for the signals which will be distributed to the Ch 3/4 speakers.

REMOTE CONTROL

LOW PASS FILTER

When Crossover Mode Selector is in Low Pass Mode, this control limits the frequencies which will be distributed to the speakers to those below the value to which this is set.

4/6 CH INPUT MODE SELECTOR

Determines internal circuit routing depending on whether or not a discrete Channel 5/6 input signal is available from head unit.

BASS BOOST CONTROL (CHANNEL 5/6 ONLY)

Increases sound level in lower frequencies by 18dB.

SPECIFICATIONS

MODEL	vibe211 2 channel amplifier	vibe221 2 channel amplifier	vibe231 2 channel amplifier	vibe241 2 channel amplifier
RMS at 4 Ohms	2 x 90W	2 x 150W	2 x 200W	2 x 250W
MAX at 4 Ohms	2 x 180W	2 x 300W	2 x 400W	2 x 500W
At 4 Ohms Bridged	1 x 360W	1 x 600W	1 x 800W	1 x 1000W
RMS at 2 Ohms	2 x 150W	2 x 250W	2 x 350W	2 x 420W
Min. Speaker Impedance	2 Ohm	2 Ohm	2 Ohm	2 Ohm
T.H.D	0.04%	0.04%	0.04%	0.04%
Frequency Response	15Hz-35kHz, -1dB	15Hz-35kHz, -1dB	15Hz-35kHz, -1dB	15Hz-35kHz, -1dB
Input Sensitivity	100mV-4000mV	100mV-4000mV	100mV-4000mV	100mV-4000mV
Input Impedance	22 kOhm	22 kOhm	22 kOhm	22 kOhm
S/N Ratio	>90dB	>90dB	>90dB	>90dB
Channel Separation	>65dB	>65dB	>65dB	>65dB
Crossover Filters				
Low Pass	40Hz-350kHz	40Hz-350kHz	40Hz-350kHz	40Hz-350kHz
High Pass	40Hz-3 kHz	40Hz-3 kHz	40Hz-3 kHz	40Hz-3 kHz
Bandpass	n/a	n/a	n/a	n/a
Bass Boost	+18dB	+18dB	+18dB	+18dB
Dimensions (Inches)	10.25 x 2 x 8 (WxHxL)	10.25 x 2 x 10 (WxHxL)	10.25 x 2 x 12 (WxHxL)	10.25 x 2 x 15 (WxHxL)
Fuse(s)	15A	20A	25A	15A x 2



vibe251 2 channel amplifier	vibe261 2 channel amplifier	vibe411 4 channel amplifier	vibe421 4 channel amplifier	vibe431 4 channel amplifier	vibe531 5 channel amplifier
2 x 400W	2 x 600W	4 x 75W	4 x 125W	4 x 150W	4 x 100W + 1 x 200W
2 x 800W	2 x 1200W	4 x 150W	4 x 250W	4 x 300W	4 x 200W + 1 x 400W
1 x 1600W	1 x 2400W	2 x 300W	2 x 500W	2 x 600W	2 x 400W + 1 x 600W
2 x 650W	2 x 1000W	4 x 125W	4 x 200W	4 x 250W	4 x 175W + 1 x 375W
2 Ohm	2 Ohm	2 Ohm	2 Ohm	2 Ohm	2 Ohm
0.04%	0.04%	0.04%	0.04%	0.04%	0.04%
15Hz–35kHz, -1dB	15Hz–35kHz, -1dB	15Hz–35kHz, -1dB	15Hz–35kHz, -1dB	15Hz–35kHz, -1dB	15Hz–35kHz, -1dB
100mV–4000mV	100mV–4000mV	100mV–4000mV	100mV–4000mV	100mV–4000mV	100mV–4000mV
22 kOhm	22 kOhm	22 kOhm	22 kOhm	22 kOhm	22 kOhm
>90dB	>90dB	>90dB	>90dB	>90dB	>90dB
>65dB	>65dB	>65dB	>65dB	>65dB	>65dB
40Hz–350kHz 80Hz–2.50kHz n/a	40Hz–350kHz 40Hz–3 kHz n/a	40Hz–350kHz 40Hz–3 kHz n/a	40Hz–350kHz 40Hz–3 kHz n/a	40Hz–350kHz 40Hz–3 kHz n/a	40Hz–500Hz 40Hz–4kHz variable, 40Hz–4kHz(HPF) 40Hz–500Hz(LPF)
+18dB	+18dB	+18dB	+18dB	+18dB	+12dB
10.25 x 2 x 19 (WxHxL)	10.25 x 2 x 21 (WxHxL)	10.25 x 2 x 12 (WxHxL)	10.25 x 2 x 14 (WxHxL)	10.25 x 2 x 17 (WxHxL)	10.25 x 2 x 24 (WxHxL)
25A x 2	40A x 2	15A x 2	20A x 2	25A x 2	30A x 2

INSTALLATION

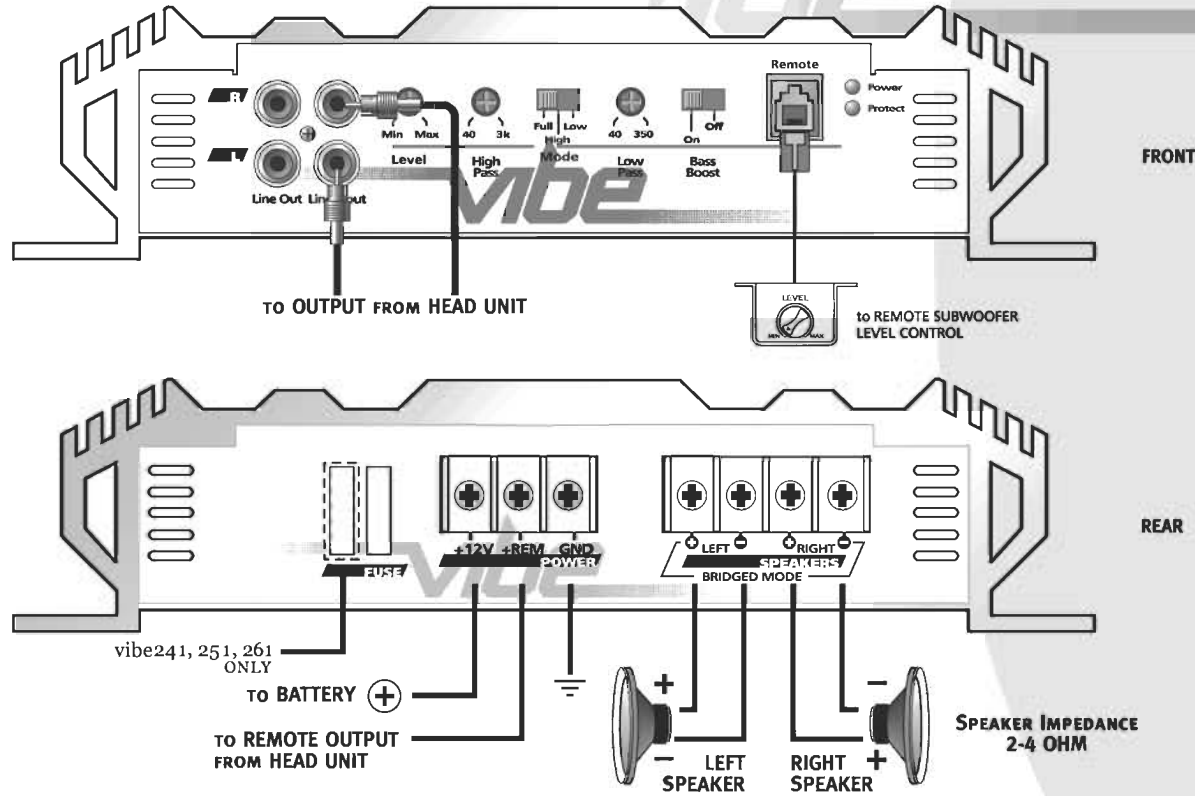
1. Find a suitable location in the vehicle to mount the amplifier.
2. Make sure there is sufficient air flow around the intended mounting location.
3. Bolt the amplifier to the mounting surface.
4. Connect the power ground terminal to the nearest point on the chassis of the car. Keep this ground wire less than one meter (39") in length. Use 8 gauge wire.
5. Connect the remote terminal to the remote output of the head unit using 14 gauge wire.
6. Connect an empty fuse holder within 300 mm (12") of the battery and run 8 gauge or larger high quality cable from this fuse to the amplifier location.
7. Make sure there is no fuse in this fuse holder. Then make the connection to the "BATT" connection on the amplifier.
8. If multiple amplifiers are being used, use cables (each with its own fuse at the battery) or a #0 or #2 cable from the fuse holder at the battery to a distribution block at or near the amplifier's location.
9. Connect all line inputs and outputs using high-quality RCA-RCA cables.
10. Insert fuse(s) at the battery fuse holder(s).
11. Recheck all connections before powering up.
12. Set all level controls to their least sensitive positions and set all crossover controls, switches, etc. to the desired frequency or position.
13. Once the system is powered up, set the volume control on the head unit to about the 2 o'clock position, and then set all the amplifiers' level controls for maximum output level.
14. Further fine tuning of the various controls may be necessary to obtain the desired results.

PRECAUTIONS

- Before you drill or cut any holes, investigate your car's layout very carefully. Take care when you work near the gas tank, fuel lines, hydraulic lines and electrical wiring.
- Do not operate the amplifier when it is unmounted. Attach all audio system components securely within the automobile to prevent damage, especially in an accident.
- Do not mount this amplifier so that the wire connections are unprotected or in a pinched condition, or likely to be damaged by nearby objects. Be sure to select a location inside your vehicle which has adequate ventilation.
- Before making or breaking power connections in your system, disconnect the vehicle battery. Confirm that your head unit or other equipment is turned off while connecting the input jacks and speaker terminals.
- If you need to replace the power fuse, only replace it with a fuse identical to that supplied with the system. Using a fuse of a different type or rating may result in damage to your system which isn't covered by the manufacturer's warranty.

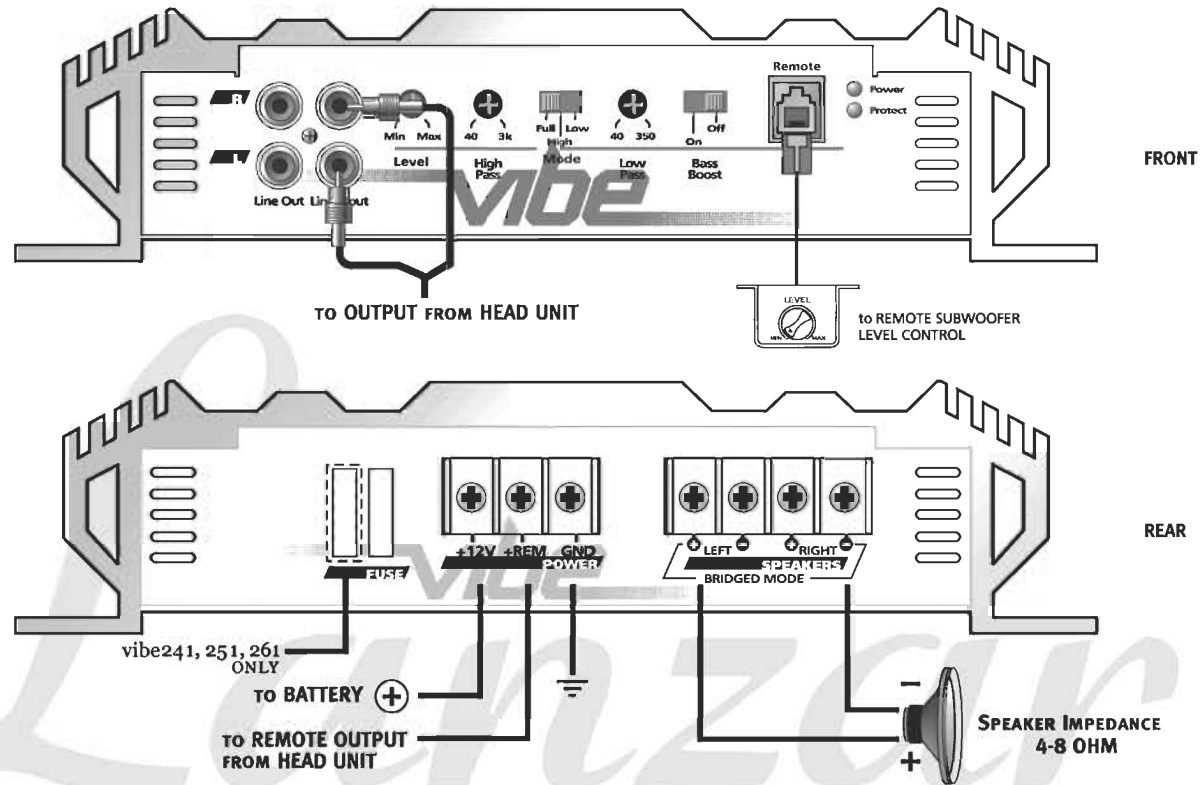
vibe211/221/231/241/251/261

SYSTEM WIRING 2 CHANNEL STEREO CONFIGURATION



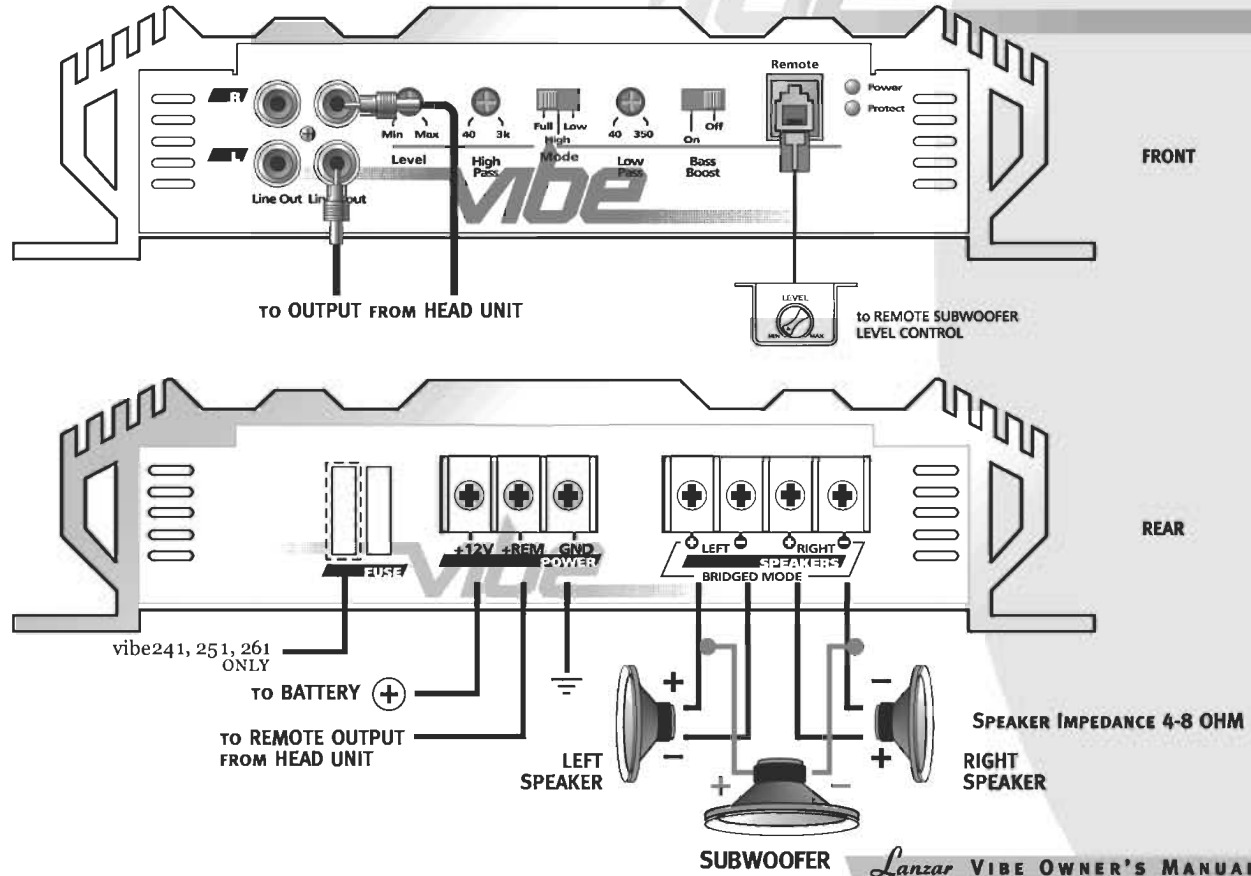
SYSTEM WIRING
2 CHANNEL BRIDGED MODE CONFIGURATION

vibe211/221/231/241/251/261



vibe211/221/231/241/251/261

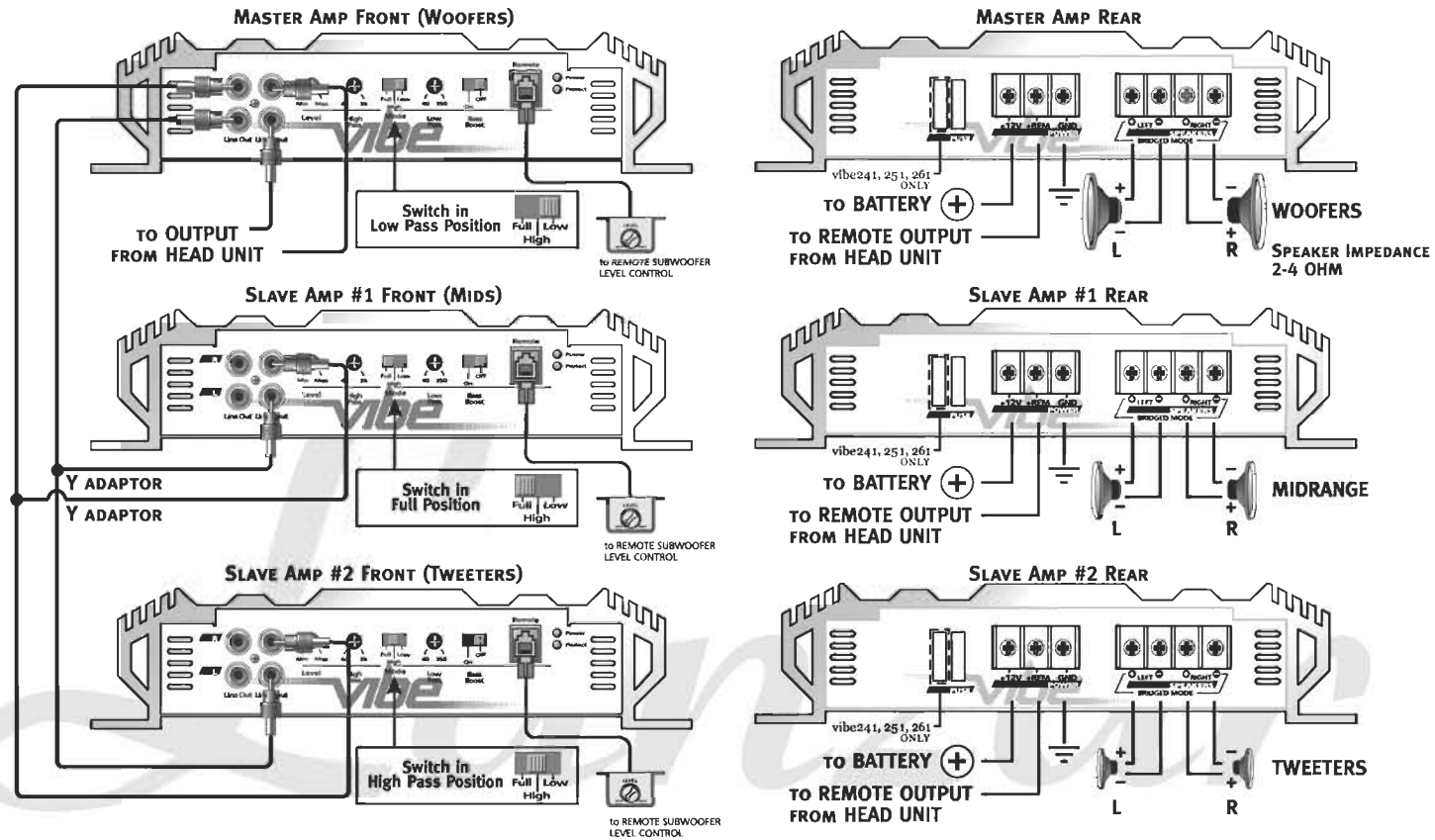
SYSTEM WIRING 2 CHANNEL TRI-MODE CONFIGURATION



SYSTEM WIRING

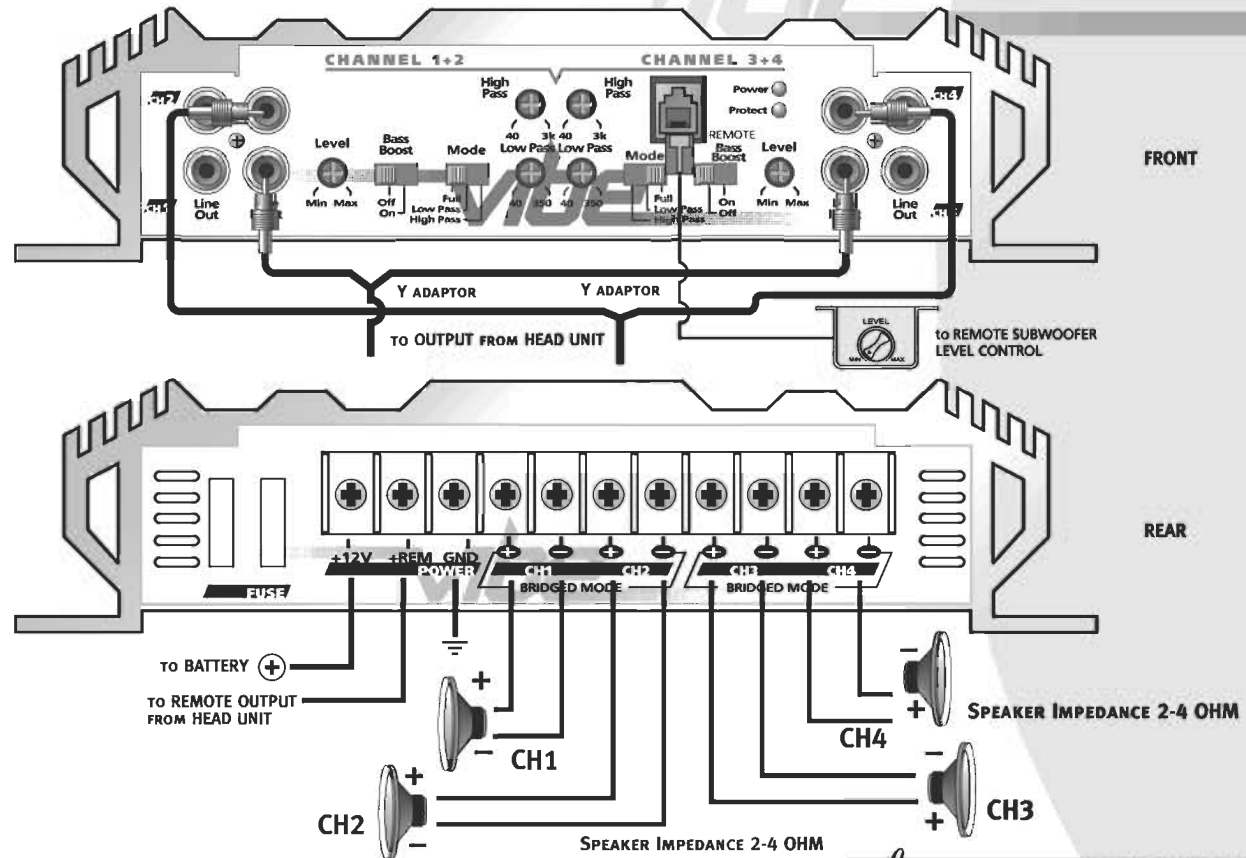
TRIAMP SYSTEM USING THREE 2 CHANNEL AMPLIFIERS

vibe211/221/231/241/251/261



vibe411/421/431

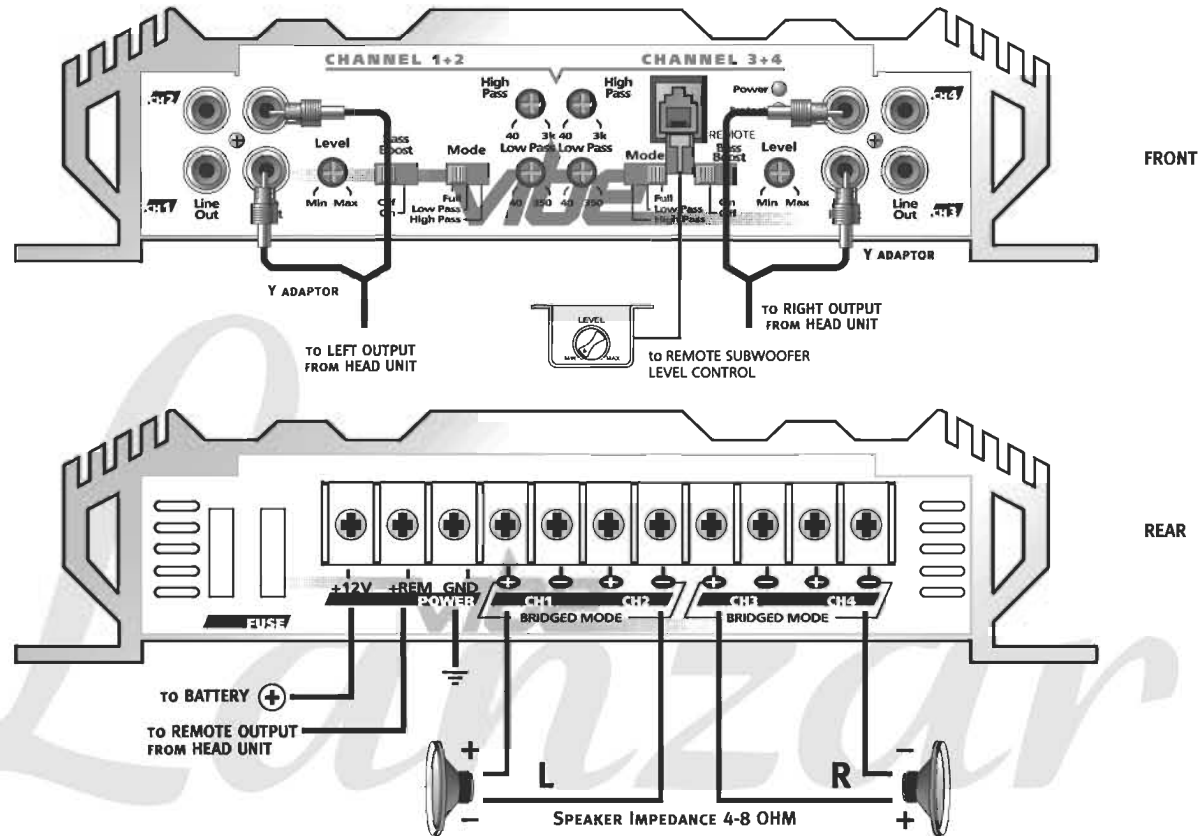
SYSTEM WIRING 4 CHANNEL STEREO CONFIGURATION



SYSTEM WIRING

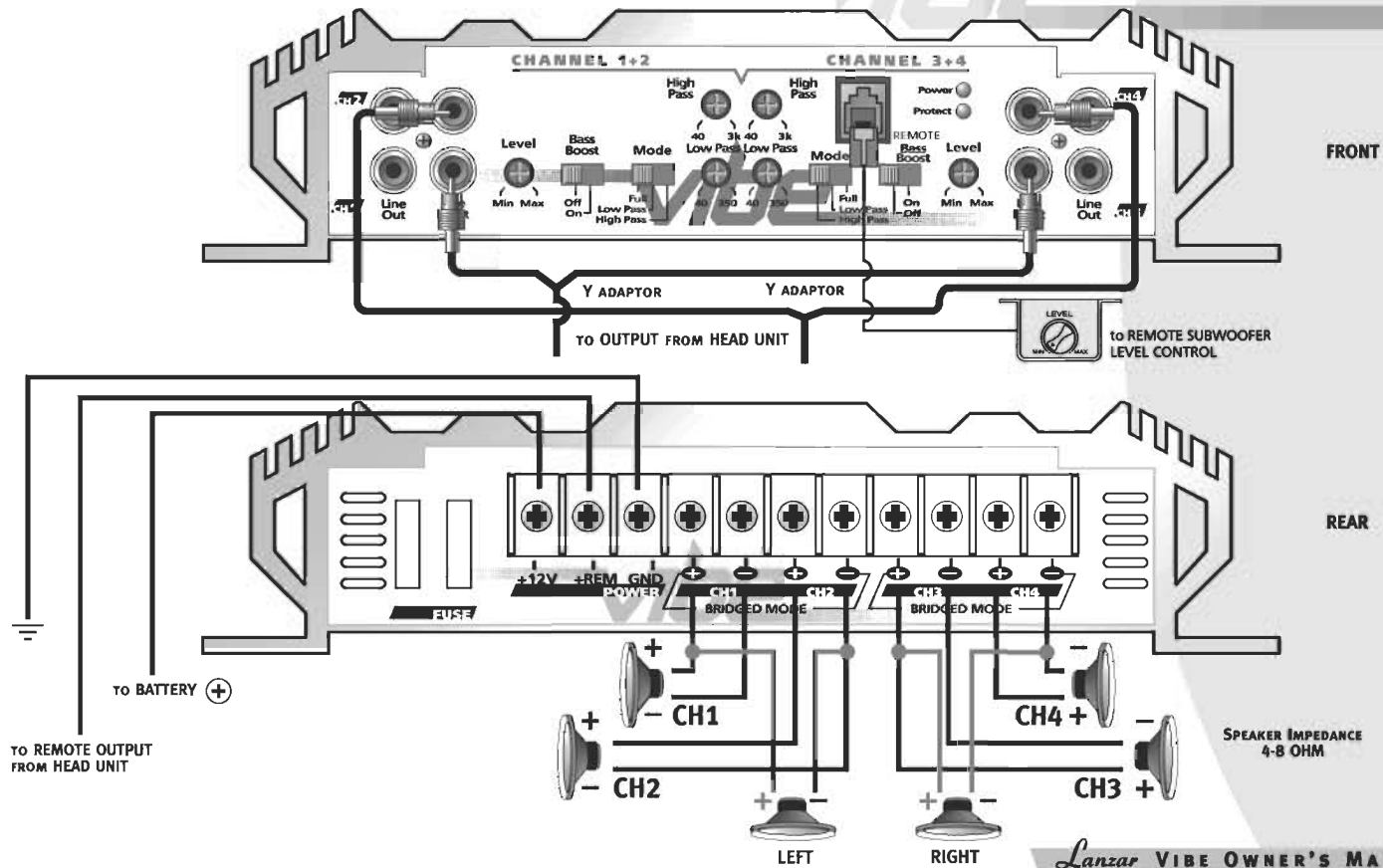
4 CHANNEL BRIDGED MODE CONFIGURATION

vibe411/421/431



vibe411/421/431

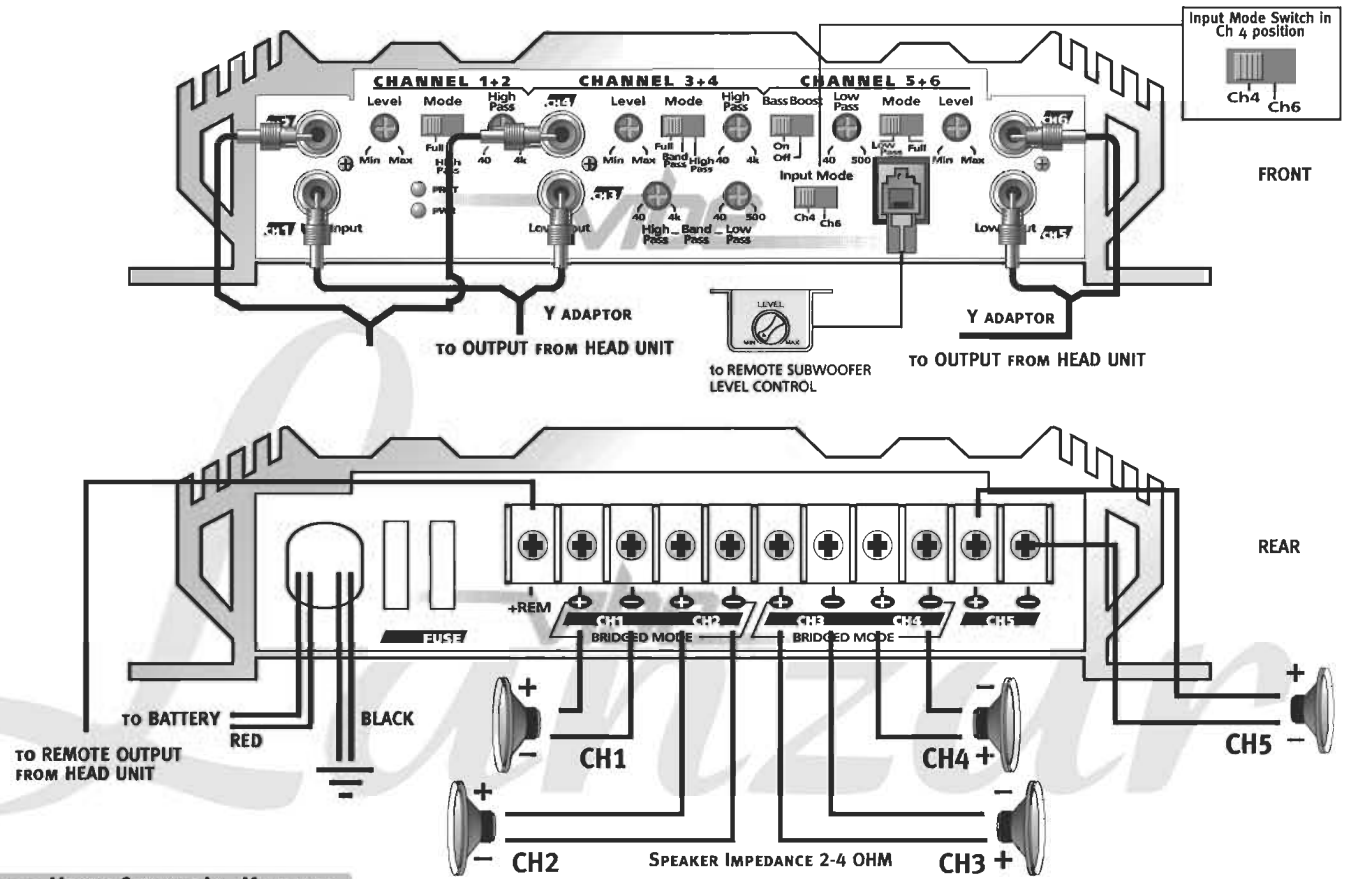
SYSTEM WIRING 4 CHANNEL TRI-MODE CONFIGURATION



SYSTEM WIRING

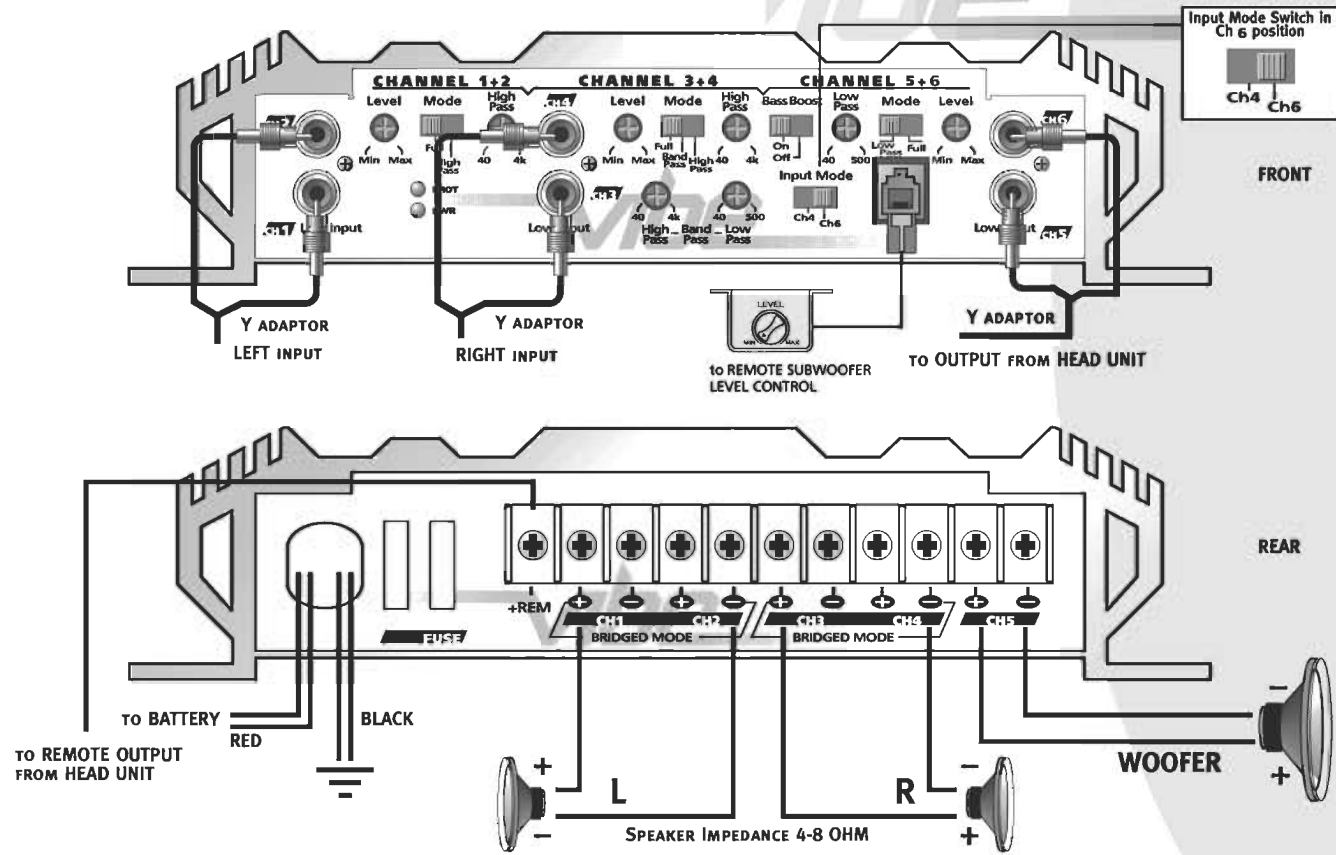
5 CHANNEL STEREO CONFIGURATION

vibe531



vibe531

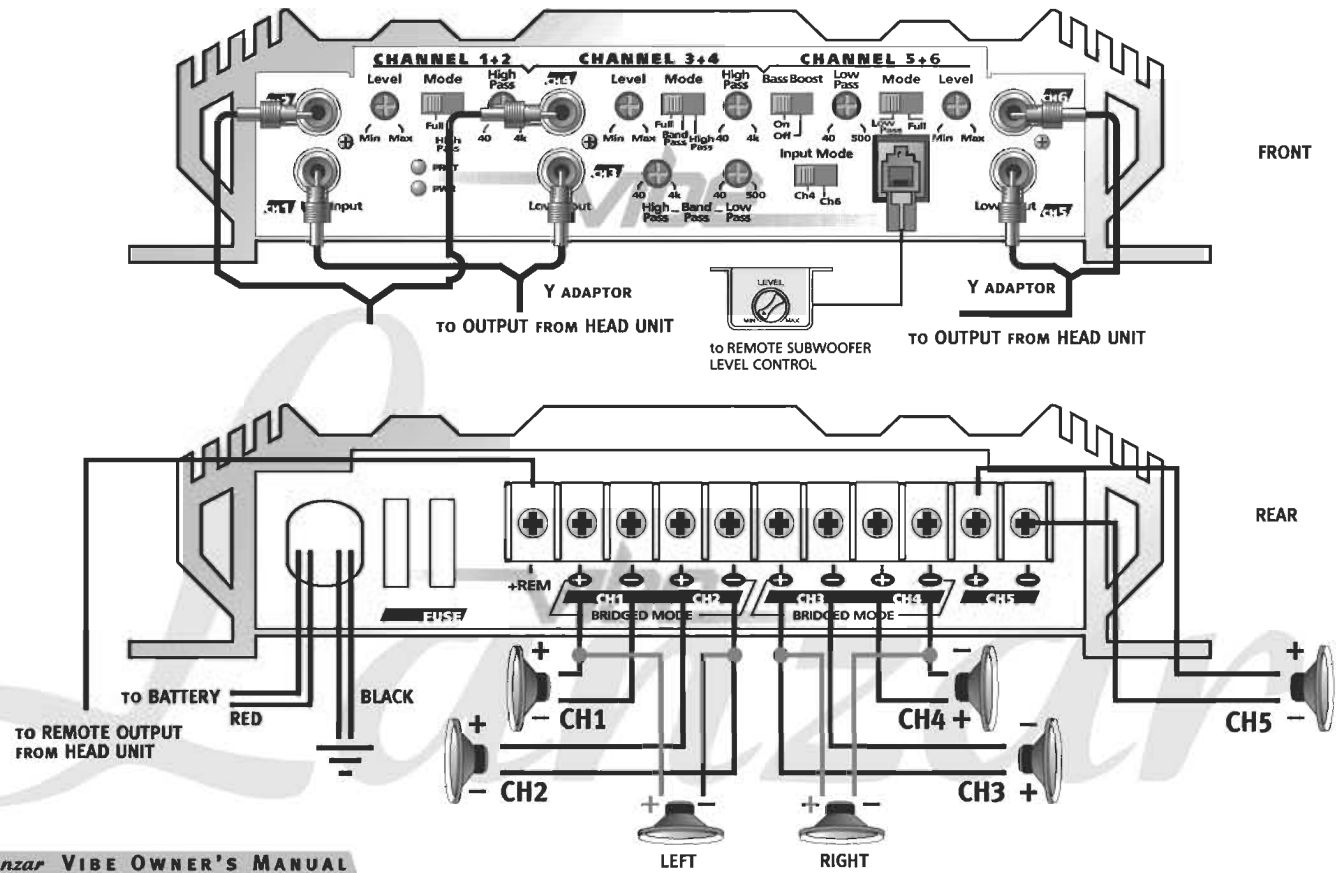
SYSTEM WIRING 5 CHANNEL BRIDGED MODE CONFIGURATION



SYSTEM WIRING

5 CHANNEL TRI-MODE CONFIGURATION

vibe531





TROUBLESHOOTING

AMPLIFIER WILL NOT POWER UP.

- Check for good ground connection.
- Check that remote DC terminal has at least 3v DC.
- Check that there is battery power on the + terminal.
- Check all fuses.
- Check that Protection LED is not lit. If it is lit, shut off amplifier briefly and then repower it.

HIGH HISS OR ENGINE NOISE (ALTERNATOR WHINE) IN SPEAKERS.

- Disconnect all RCA inputs to the amplifier(s) – if hiss/noise disappears, then plug in the component driving the amplifier and unplug its inputs. If hiss/noise disappears, go on until the faulty/noisy component is found.
- It is best to set the amplifier's input level as low as possible. The best subjective S/N ratio is obtainable this way. Try to drive as high a signal level from the head unit as possible.

PROTECTION LED COMES ON WHEN THE AMPLIFIER IS POWERED UP.

- Check for shorts on speaker leads.
- Check that the volume control on the head unit is turned down low.
- Remove speaker leads, and reset the amplifier. If the Protection LED still comes on, then the amplifier is faulty.

AMPLIFIER(S) GETS VERY HOT.

- Check that the minimum speaker impedance for that model is correct.
- Check for speaker shorts.
- Check that there is good airflow around the amplifier. In some applications, an external cooling fan may be required.

DISTORTED SOUND

- Check that the Level control(s) is set to match the signal level of the head unit.
- Check that all crossover frequencies have been properly set.
- Check for shorts on the speaker leads.

HIGH SQUEAL NOISE FROM SPEAKERS.

- This is almost always caused by a poorly-grounded RCA patch cord.



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